

AlfaThai-FM10/15/50/80E

(10-80watt- Digital FM Stereo Exciter/Transmitter)

- Compact lightweight unit
- LDMOS power design
- FM Band Harmonic filter
- 8bits Microcomputer PLL
- Digital stereo encoder
- Built in limiter/compressor
- LCD display Fan cooled
- Electronics Alarms and fault monitoring
- DIN Type remote control
- Loop through / External MPX capable for RDS
- Switchable/Manual settings
- RF power control
- VSWR and overheat overdrive protection.
- CCIR/FCC/UL test standards.



AlfaThai Exciter FM10/15/50/80E Model

The AlfaThai Exciter model FM10/15/50/80E is lightweight compact professional specification fit in 2U type rack-mount configuration. AlfaThai has design for FM broadcast transmitter both non-education and commercial 24/7 operation. The exciter rf output power is adjustable from 0-10 watts on FM-10E model and 0-15watt on FM-15E and 0-50 watts on FM-50E model and 0-80watt on FM-80E model with dual mode rf power output protection which one on final rf transistor for exciter and one for final rf amplifier to antenna fault monitor or driven your exciting final rf power or to prevent your FM power amplifier. Ensure your system provide full power all time 24/7 operation purpose. The Frequency is adjustable from 87.5 to 108 MHz in 50 khz step from the front panel graphics display control system. A Key lock setting the frequency disables the menu system from changing the frequency ensuring no unauthorized frequency changes.

The AlfaThai Exciter model FM10/15/50/80E is LCD graphics display on the front panel can indicate and control frequency, rf output adjust both from software as bargraphics level or manual rf power adjustment selection by internal jumper. The option meter for exciter system shall be integrated LED level meter or analog meter or digital 7 segment meter as second display for your monitoring rf output system or can indicate forward and reverse power with LED indicator to alarm status monitor.

The Rear panel contains XLR balance line or some model provides SPDIF unbalance line for all standard model, please spec as order. The top model is provides professional audio support with more than 65db stereo separate while economic system is provides stereo separate >45 db with SPDIF audio connector and the top system build-in internal compression/limiter application, You can any change by internal jumper input level controls on Stereo Generator pcb, Optional DIN-Type 9 way or DB9 type for remote control and status monitor, Second option is BNC for multiplex output from the internal digital stereo generator, BNC for multiplex input to the exciter for loop through operation and external processor input is an optional. Please confirmed your spec while place an order.

The RF output is via an UHF-SO239 for the exciter while N-Type is an optional. Main AC input is swichtable and fused protect IEC power connector while utilize mini auto breaker for all export model. The transmitter is fully configurable and the limiter and stereo encoder can be switched in and out of circuit. Jumpers available on board for pre emphasis, clipping, processing mode (clarity/loud), stereo/mono, and limiter on/off upon stereo generator model etc.

The microcomputer 8bits control PLL system allows perfect transmitting frequency and audio flatness to below 20 Hz. AFC bounce and modulator overshoot are a thing of the past. You now can pass that low bass without distortion and overshoots and obtain that extra low frequency stereo separation. The exciter final amplifier is based modern MOSFET device while LDMOS technology apply for the exciter. A fresh air tunnel through the transmitter keeps cool air running right through the heatsink. The amplifier is digital type control and protected from damage by high current or over voltage, high temperature control systems and antenna fault (SWR) monitoring.

The exciter is turned back into the safety zone should a fault occur, keeping you on air rather than shutting down completely and taking you off air. Internal harmonic filtering keeps your RF signal clean and compliant to FCC/CCIR standards. The transmitter contains fully approved efficient switched mode power supply modules with a universal input voltage range from 180-260 Volts AC by switches mode, Ensuring compatibility of any mains system WORLD-WIDE.

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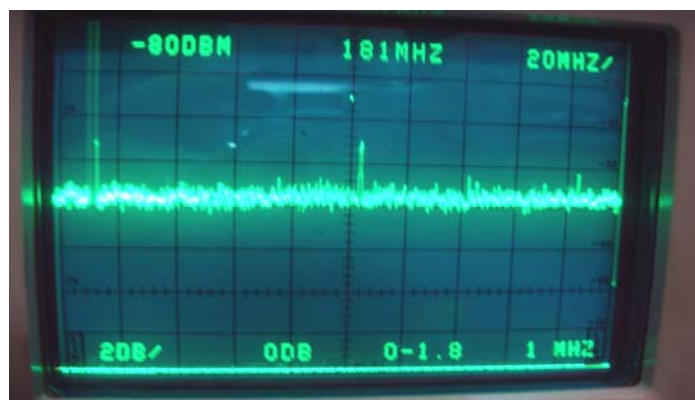
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AlfaThai Exciter FM 10/15/50/80E General Specifications

RF POWER MODULE AND DIGITAL RADIO CONTROL SECTION	
RF Power from Exciter	Each the exciter model 0-80W Watt front panel adjustable by pot and/or software
External RF Amplifier	FM150B, 350B, 600B, 800B, 1000B, 1200B, 1600B, 2000B, 2500B and 3200B
Electronics device	RF Power LDMOS technology with final rf out Low Pass Filter
Connector	UHF-Type 50 Ohm SO-239 (N-Type an option)
Harmonics	Better than -80 dBc
Spurious	Better than -90 dBc
VSWR protection	Automatic Fold back above 1.5:1 force off-air and release by reset switch
S/N	>80dB
RF Leakage	0.5dB@ PLL unlock or tune
Frequency	87.5 - 108 MHz +/- 75Khz FM deviation
Frequency	Steps 50kHz All adjustable from the front panel
Frequency Selection	Front panel menu system
Frequency Control type	Microcomputer control Phase locked loop
Frequency Range	87.5-108MHz and 76-90Mhz for Japan version, on demand.
Frequency Display	LCD
Over temperature	Automatic force off-air to prevent your final rf output transistor
Frequency Stability	+/- 20 Hz
MPX Input and Option	BNC from real panel while audio input level control is optional
MPX Input Response	+/- 0.3 dB 5 Hz to 100 kHz
MPX Input Level	-10dB to +10dB (adjustable)
Modulation	Direct Frequency Modulation
DIGITAL AUDIO AND STEREO GENERATOR SECTION	
Subcarrier Generation	Microprocessor Generated (over sampled)
Pilot	19kHz +/- 2 Hz
Pilot Generation	Microprocessor Generated (over sampled)
Output Level	Internal direct connect, and (BNC real panel option) 0dB
15 kHz Filtering	>40dB at 19kHz
15kHz Overshoot Filter Clipping	On or Off
Spurious > 80 kHz	>60dB
Spurious >160 kHz	>80dB
Stereo Separation	>60dB (20Hz-15kHz)
BUILD-IN DIGITAL AUDIO LIMITER / COMPRESSOR	
Audio Input Levels	-10dB to +24dB for 75Khz deviation (Type +18dB for limiting)
Audio Input Connectors	XLR balanced with EMI/RFI shielded
Input CMRR	>60dB
Audio Distortion	<.2% at limiting 1 kHz (clarity mode measure on PLL module)
Frequency Response	>20 Hz to 20khz +/- 0.5db (0 us Pre-Emphasis)
Limiter Control Range	>22dB (0 us Pre-Emphasis)
Input Impedance	10k Ohms XLR Balance mode
Pre-Emphasis	0,50 and 75 uS by internal onboard Jumper
Process Modes	Clarity and Loud by onboard soldering selected
Clipping	On or Off by internal onboard Jumper
Stereo/Mono Selectable	On or Off by internal onboard Jumper

OTHER	
Front Panel Control System	3 Buttons, 30x80mm LCD Display, 1 Key lock, On/Off-Air switches
Cooling	2 - 4 Depression Fan 220VAC with thermal fuse protection size 8x8cm
External Control/Monitor	9 Way D-Type (option)
Front Panel Metering status	The Exciter is LCD while optional is second LED/7 segment display with/Without selector selectable mode for RF power meter.
Front Panel standard indicator/Status	Power On, PLL, Stereo, rf power gain control
Real Panel Control System	AC input, Power On-Off, Reset Breaker (option), Audio Input, RF Output, fuse ac input, fuse ac fan, fuse dc.
Real Panel Connector	UHF-SO239, Ground Connector, XLR or SPDI, N-Type and BNC for MPX optional
RF Section Protection	VSWR, Antenna Fault, Temperature, RF Gain Disable and LPF for final output
Electrical Protection	Over/Under Voltage and current, Temperature, Thermal fuse for AC Fan or fuse
Final Lab Test to Comply all country Regulation Requirement	Final test and comply to all your regulation requirement, QC by our Lab test equipment consists of: Tektronix 492 (100KHz-330GHz) Spectrum Analyzer, HP8590A + HP8443A + HP85029A + HP54503A +HP435B Broadcast Test Set and Analyzer, Racal 1992 10Hz – 1.2GHz frequency counter, Rohde & Schwarz Broadcast Audio Generator 1Hz-600KHz etc!!!!
Manufacture Certificate	We offering QC test data enclosed our product for all regulation reference.
Size	Standard 19 Inc Rack mount, (Approx 80mm x 420mm x 380mm) 2U type
Weight (approx)	3.5-5.5kg upon model
AC Voltage Input	110 or 260 VAC switchable or Linear poer supply up-on model
Power Connector	IEC, FUSED and Switchable
Switched Mode Supplies Approvals	UL/TUV/CE
Warrantee Period	24 Month after payment
Warrantee voided	No authorize is opened equipment cover or repairs or modification.
Warrantee condition	Normal Operated only, Two times System Alignment at our facility, For on-site services: First installation is free and next times will be transport charge only, Due to switching power is used internal equipment, User must be provide electrical stabilizer and good electrical ground with lightning protection for normal operated.
Repair Fee	All warrantee No services fee of charge, On-Site service transportation charge, for A damage of RF parts and power supply is spare parts charge plus 30% off. Other parts are free of charge.
After warrantee voided	All services offer year to year maintenance contract.
General services fee	All parts for repair is 20% off, Our facility Service charge 50USD flat rate/times



Picture show 2nd harmonics at test frequency better than -85dBc

24/7 Full time RF Power Amplifier

AlfaThai-FM150 and 350W

(150-350watt FM Amplifier)

- Compact lightweight unit
- LDMOS power design
- FM Band Harmonic filter
- Digital Power Meter
- Electronics Alarms and fault monitoring
- DIN Type remote control
- Loop through / External MPX capable for RDS
- Switchable/Manual settings
- RF power control
- VSWR and over temp and overdrive protection.
- CCIR/FCC/UL test standards.
- Low input drive available 0-1 or 0-3 watt option



AlfaThai FM150 and 350Watt FM Amplifier

The AlfaThai FM150 and FM350 is FM band amplifier specification. Design for FM broadcast radio station education and commercial applicable that is ideally suited for low power radio stations or upgrade to public radio broadcast station. The FM amplifier provides rf output power adjustable from 0-180 watts on FM-150B model and 0-380watt on FM-350B model with rf power amplifier over-driven and antenna fault monitor protection to prevent your FM power amplifier any fault during operation. Ensure your system provide full power all time 24/7 operation purpose and more reliable as any environment... The system is design for broadband high rf gain and low power consumption while provides your rf power output adjustable from front panel zero to max output power.

The AlfaThai FM150B and FM350B provides digital meter display on the front panel can indicate rf output power and swr is standard model while the power amplifier dc voltage, dc current, internal temperature, incoming rf driver power and swr, aux voltage status all an optional, please added your requirement as place order. The low rf driven with output adjustable is an option. The amplifier has LED indicator to all fault alarm status monitor

The Rear panel contains UHF type SO-239 accept your rf power from the exciter while N-Type is deploy for output to the antenna. The amplifier has utilize smart directional couple to detect your vswr from the antenna, the result provides faster response to prevent your rf power amplifier from flash lightning, any accident from antenna connector, transmission line fault, intermittence connection between cable and antenna element, no-antenna connection and more... the system will be force shunt down rf power amplifier to prevent any high cost impact to your broadcast station while your audio program still broadcast without any interruption until the problem has solve and all alarm status is correct by depressing the front panel reset switches.

The amplifier provides full rf output power with excellent harmonics and spurious better than -60dBc full FM band specification. Ensure your FM radio broadcast station met high standard, low power consumption and more reliable 24/7 operation cost. All AlfaThai rf power amplifier utilize LDMOS technology to provides high rf gain with low power consumption through 9 section low pass filter and smart directional couple to prevent your final amplifier from any rf output accident from rise temperature and the antenna fault or high vswr condition.

The power to the amplifier is turned back into the safety zone should a fault occur, keeping you on air rather than shutting down completely and taking you off air. Internal harmonic filtering keeps your RF signal clean and compliant to FCC/DTR and CCIR standards. The transmitter contains fully approved efficient switched mode power supply modules with a universal input voltage range from 115-260 Volts AC selectable by switches, Ensuring compatibility of any mains system WORLD-WIDE.

The AlfaThai fm and tv transmitter is an attractive all in one broadcast solution for small scale stations. Because the exciter, amplifier, power supply, stereo encoder and limiter are all in one case the price is less than half that of other comparable systems. Designed for the small scale broadcaster and at a small scale price.

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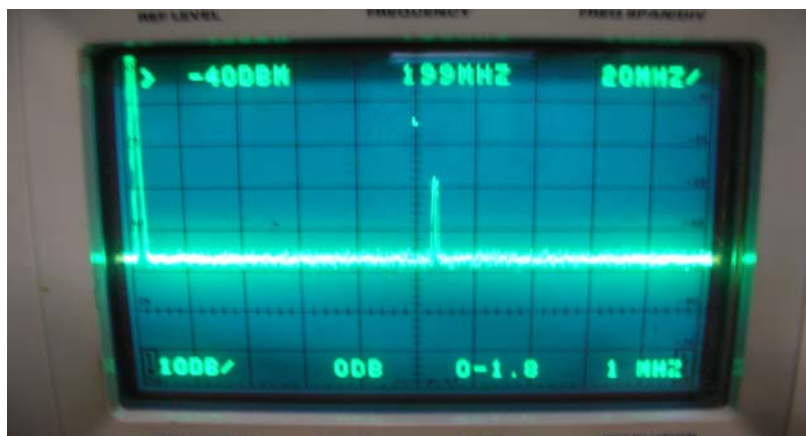
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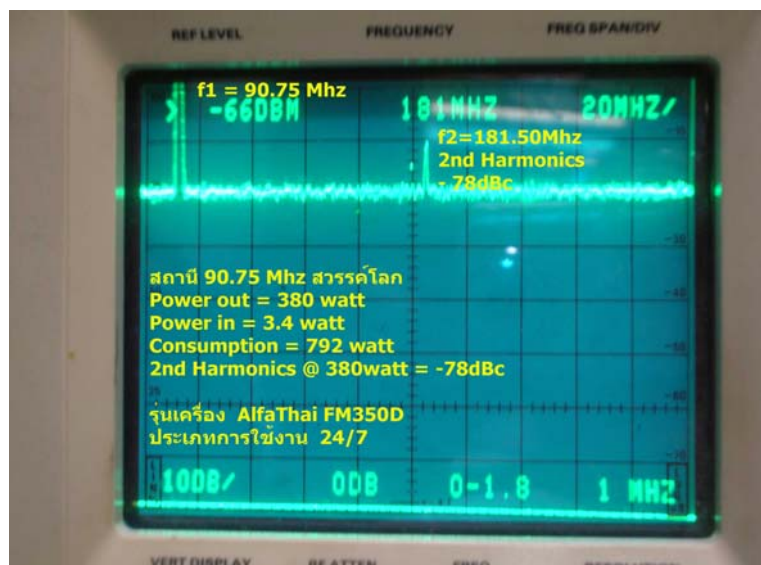
AlfaThai FM150 and 350 General Specifications

RF POWER AMPLIFIER MODULE	
RF from Exciter Drive	Approx. 0-2.5watt for model FM150B and drive 0-3.5watt for model FM350B
RF Power from RF power	0-180watt on FM150 Model and 0-380watt on FM350 model
Electronics device	RF Power LDMOS technology with Low Pass Filter and smart VSWR monitor
Connector	UHF-Type 50 Ohm SO-239 for input while N-Type for RF antenna connector
2 nd Harmonics	Better than -60 dBc FCC and CCIR Standard
Spurious	Better than -80 dBc FCC and CCIR Standard
VSWR protection	Automatic Fold back above 1.5:1 force off-air and release by reset switch
Input Impedance	50 Ohm
Output Impedance	50 Ohm
Frequency Band	Broadband FM 87.5 - 108 MHz
Input Connector	UHF SO-239
Output Connector	N Type
Remote Control Interface	DIN Type
Operating Temp	- 10 to +50 Degree C
Relative Air Humidity	90% @ 25 Degree C no condensation
Force Over temperature	40.4 Degree C force off-air
Max Altitude	2000 m a. s. l
Max power consumption	220V ac. @ 2.4A max. 180watt rf output
Max power consumption	220V ac. @ 3.6A max. 350watt rf output
DC Power Supply	Switches mode 48 Volt +/- 5% @ 5.8A max. 180watt rf output
DC Power Supply	Switches mode 48 Volt +/- 5% @ 11.48A max. 380watt rf output
ELECTRONICS PROTECTION SECTION	
RF Output Protection	Antenna: Open, Short, Cut, Intermittance, high VSWR, Over spec drive.
RF Input Protection	Over drive, surge from exciter
Electrical Protection	Over Voltage, Over Current, Over Temperature
Mechanical Protection	Solid state relay and drive relay for PA power supply
RF Detection	Smart RF Direct coupling technology with impedance monitoring
Control system	Measuring detector On and Off latch output state
RF Protection	9 Section Low Pass Filter
EMI/RFI Protection	AC line Filter and Ground terminal
OTHER	
Front Panel Control System	2 Buttons for protection and meter, digital meter, On/Off-Air switches
Cooling	4 Depression DC Fan with fuse protection
External Control/Monitor	9 Way DIN or D-Type (option)
Metering	Digital Meter for RF power/SWR monitor
Front Panel standard indicator	Power On, Antenna Fault, rf amplifier vcc power, On-Air, Over drive
Real Panel Control System	AC input, Power On-Off, Reset Breaker (option), ac/dc Fuse break
Real Panel Connector	UHF-SO239, N Type, Ground Connector, DIN or D type for remote is optional
Final Lab Test to Comply all country Regulation Requirement	Final test and comply to all your regulation requirement, QC by our Lab test equipment consists of: Tektronix 492 (100KHz-330GHz) Spectrum Analyzer, HP8590A + HP8443A + HP85029A + HP54503A +HP435B Broadcast Test Set and Analyzer, Racal 1992 10Hz – 1.2GHz frequency counter, Rohde & Schwarz Broadcast Audio Generator 1Hz-600KHz etc!!!!

Manufacture Certificate	We offering QC test data enclosed our product for all regulation reference.
Size	Standard 19 Inc Rack mount, (Approx120mm x 420mm x 380mm) 3U type
Weight (approx)	5.5-8.5kg upon model
AC Voltage Input	110 or 260 VAC switchable
Power Connector	IEC, FUSED and Switchable
Switched Mode Supplies Approvals	UL/TUV/CE
Warrantee Period	24 Month after payment
Warrantee voided	No authorize is opened equipment cover or repairs or modification.
Warrantee condition	Normal Operated only, Two times System Alignment at our facility, For on-site services: First installation is free and next times will be transport charge only, Due to switching power is used internal equipment, User must be provide electrical stabilizer and good electrical ground with lightning protection for normal operated.
Repair Fee	All warrantee No services fee of charge, On-Site service transportation charge, for A damage of RF parts and power supply is spare parts charge plus 30% off. Other parts are free of charge.
After warrantee voided	All services offer year to year maintenance contract.
General services fee	All parts for repair is 20% off, Our facility Service charge 50USD flat rate/times



Picture show 2nd harmonics better than -65 dBc at full output power



AlfaThai-FM600B and 800B

(Full power 24/7 operate output 550-800watt- FM Amplifier)

- Compact lightweight unit
- LDMOS power design
- FM Band Harmonic filter
- Digital Power Meter
- Electronics Alarms and fault monitoring
- DIN Type remote control
- Loop through / External MPX capable for RDS
- Switchable/Manual settings
- RF power control
- VSWR and over temp and overdrive protection.
- CCIR/FCC/UL test standards.
- Low input drive available 0-3 or 0-5 or 0-10watt option



AlfaThai FM600 and 800Watt FM Amplifier

The AlfaThai FM600B and FM800B is utilize FM broadband 700 and 850 watt rf amplifier module specification. Design for FM broadcast radio station education and commercial applicable that is ideally suited for medium power radio stations or upgrade from low power to public radio broadcast station. The FM amplifier provides rf output power adjustable from 0-650 watts on FM-600B model and 0-800watt on FM-800B model with rf power amplifier over-driven and antenna fault monitor protection to prevent your FM power amplifier any fault during operation. Ensure your system provide full power all time 24/7 operation purpose and more reliable as any environment... The system is design for broadband high rf gain and low power consumption while provides your rf power output adjustable from front panel zero to max output power.

The AlfaThai FM600B and FM800B provides digital meter display on the front panel can indicate rf output power and swr is standard model while the power amplifier dc voltage, dc current, internal temperature, incoming rf driver power and swr, aux voltage status all an optional, please added your requirement as place order. The low rf driven with output adjustable is an option. The amplifier has LED indicator to all fault alarm status monitor

The Rear panel contains UHF type SO-239 accept your rf power from the exciter while N-Type is deploy for output to the antenna. The amplifier has utilize smart directional couple to detect your vswr from the antenna, the result provides faster response to prevent your rf power amplifier from flash lightning, any accident from antenna connector, transmission line fault, intermittence connection between cable and antenna element, no-antenna connection and more... the system will be force shunt down rf power amplifier to prevent any high cost impact to your broadcast station while your audio program still broadcast without any interruption until the problem has solve and all alarm status is correct by depressing the front panel reset switches.

The amplifier provides full rf output power with excellent harmonics and spurious better than -60dBc full FM band specification. Ensure your FM radio broadcast station met high standard, low power consumption and more reliable 24/7 operation cost. All AlfaThai rf power amplifier utilize LDMOS technology to provides high rf gain with low power consumption through 9 section low pass filter and smart directional couple to prevent your final amplifier from any rf output accident from rise temperature and the antenna fault or high vswr condition.

The power to the amplifier is turned back into the safety zone should a fault occur, keeping you on air rather than shutting down completely and taking you off air. Internal harmonic filtering keeps your RF signal clean and compliant to FCC/DTR and CCIR standards. The transmitter contains fully approved efficient switched mode power supply modules with a universal input voltage range from 115-260 Volts AC selectable by switches, Ensuring compatibility of any mains system WORLD-WIDE.

The AlfaThai fm and tv transmitter is an attractive all in one broadcast solution for small scale stations. Because the exciter, amplifier, power supply, stereo encoder and limiter are all in one case the price is less than half that of other comparable systems. Designed for the small scale broadcaster and at a small scale price.

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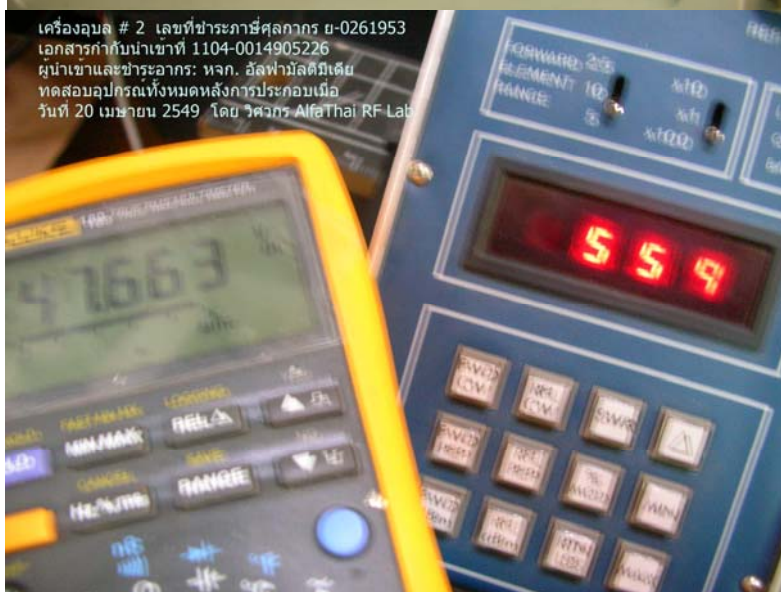
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AlfaThai FM600B and FM800B General Specifications

RF POWER AMPLIFIER MODULE	
RF from Exciter Drive	Approx. 0-12watt for model FM600B and drive 0-16watt for model FM800B
RF Power from RF power	0-700watt on FM600B Model and 0-850watt on FM800B model
Electronics device	RF Power LDMOS technology with Low Pass Filter and smart VSWR monitor
Connector	UHF-Type 50 Ohm SO-239 for input while N-Type for RF antenna connector
2 nd Harmonics	Better than -60 dBc FCC and CCIR Standard
Spurious	Better than -80 dBc FCC and CCIR Standard
VSWR protection	Automatic Fold back above 1.5:1 force off-air and release by reset switch
Input Impedance	50 Ohm
Output Impedance	50 Ohm
Frequency Band	Broadband FM 87.5 - 108 MHz
Input Connector	UHF SO-239
Output Connector	N Type
Remote Control Interface	DIN Type
Operating Temp	- 10 to +50 Degree C
Relative Air Humidity	90% @ 25 Degree C no condensation
Force Over temperature	40.4 Degree C force off-air
Max Altitude	2000 m a. s. l
Max power consumption	220V ac. @ 5.4A max. 600watt rf output
Max power consumption	220V ac. @ 6.8A max. 800watt rf output
DC Power Supply	Switches mode 48 Volt +/- 5% @ 21.8A max. 600watt rf output
DC Power Supply	Switches mode 48 Volt +/- 5% @ 24.48A max. 800watt rf output
ELECTRONICS PROTECTION SECTION	
RF Output Protection	Antenna: Open, Short, Cut, Intermittance, high VSWR, Over spec drive.
RF Input Protection	Over drive, surge from exciter
Electrical Protection	Over Voltage, Over Current, Over Temperature
Mechanical Protection	Solid state relay and drive relay for PA power supply
RF Detection	Smart RF Direct coupling technology with impedance monitoring
Control system	Measuring detector On and Off latch output state
RF Protection	9 Section Low Pass Filter
EMI/RFI Protection	AC line Filter and Ground terminal
OTHER	
Front Panel Control System	2 Buttons for protection and meter, digital meter, On/Off-Air switches
Cooling	4 Depression DC Fan with fuse protection
External Control/Monitor	9 Way DIN or D-Type (option)
Metering	Digital Meter for RF power/SWR monitor
Front Panel standard indicator	Power On, Antenna Fault, rf amplifier vcc power, On-Air, Over drive
Real Panel Control System	AC input, Power On-Off, Reset Breaker (option), ac/dc Fuse break
Real Panel Connector	UHF-SO239, N Type, Ground Connector, DIN or D type for remote is optional
Final Lab Test to Comply all country Regulation Requirement	Final test and comply to all your regulation requirement, QC by our Lab test equipment consists of: Tektronix 492 (100KHz-330GHz) Spectrum Analyzer, HP8590A + HP8443A + HP85029A + HP54503A +HP435B Broadcast Test Set and Analyzer, Racal 1992 10Hz – 1.2GHz frequency counter, Rohde & Schwarz Broadcast Audio Generator 1Hz-600KHz etc!!!!

Manufacture Certificate	We offering QC test data enclosed our product for all regulation reference.
Size	Standard 19 Inc Rack mount, 3U or 4 type
Weight (approx)	18-25kg upon model
AC Voltage Input	110 or 260 VAC switchable
Power Connector	IEC, FUSED and Switchable
Switched Mode Supplies Approvals	UL/TUV/CE
Warrantee Period	24 Month after payment
Warrantee voided	No authorize is opened equipment cover or repairs or modification.
Warrantee condition	Normal Operated only, Two times System Alignment at our facility, For on-site services: First installation is free and next times will be transport charge only, Due to switching power is used internal equipment, User must be provide electrical stabilizer and good electrical ground with lightning protection for normal operated.
Repair Fee	All warrantee No services fee of charge, On-Site service transportation charge, for A damage of RF parts and power supply is spare parts charge plus 30% off. Other parts are free of charge.
After warrantee voided	All services offer year to year maintenance contract.
General services fee	All parts for repair is 20% off, Our facility Service charge 50USD flat rate/times



AlfaThai-FM1000B and 1200B

(Full power 24/7 operate output 1050-1250watt- FM Amplifier)

- Utilize 2x600w or 2 x800w PA
- Wilkinson splitter/combiner for input/output amplifier
- Compact unit 15-22 U Rack
- LDMOS power design
- FM Band Harmonic filter
- Digital Power Meter
- Electronics Alarms and fault monitoring
- DIN Type remote control
- Loop through / External MPX capable for RDS
- Switchable/Manual settings
- RF power control
- VSWR and over temp and overdrive protection.
- CCIR/FCC/UL test standards.
- Low input drive available 0-3 or 0-5 or 0-10watt option



AlfaThai FM1000B and 1200B FM Amplifier

The AlfaThai FM1000B and FM1200B utilize FM broadband 2x700 and 2x850 watt rf amplifier module specification. Design for FM broadcast radio station education and commercial applicable that is ideally suited for medium power radio stations or upgrade from low power to public radio broadcast station. The FM amplifier provides rf output power adjustable from 0-1150 watts on FM-1000B model and 0-1350watt on FM-1200B model with rf power amplifier over-driven and antenna fault monitor protection to prevent your FM power amplifier any fault during operation. Ensure your system provide full power all time 24/7 operation purpose and more reliable as any environment... The system is design for broadband high rf gain and low power consumption while provides your rf power output adjustable from front panel zero to max output power.

The AlfaThai FM1000B and FM1200B provides digital meter display on the front panel can indicate rf output power and swr is standard model while the power amplifier dc voltage, dc current, internal temperature, incoming rf driver power and swr, aux voltage status all an optional, please added your requirement as place order. The low rf driven with output adjustable is an option. The amplifier has LED indicator to all fault alarm status monitor

The Rear panel contains UHF type SO-239 accept your rf power from the exciter while N-Type is deploy for output to the antenna. The amplifier has utilize smart directional couple to detect your vswr from the antenna, the result provides faster response to prevent your rf power amplifier from flash lightning, any accident from antenna connector, transmission line fault, intermittence connection between cable and antenna element, no-antenna connection and more... the system will be force shunt down rf power amplifier to prevent any high cost impact to your broadcast station while your audio program still broadcast without any interruption until the problem has solve and all alarm status is correct by depressing the front panel reset switches.

The amplifier provides full rf output power with excellent harmonics and spurious better than -60dBc full FM band specification. Ensure your FM radio broadcast station met high standard, low power consumption and more reliable 24/7 operation cost. All AlfaThai rf power amplifier utilize LDMOS technology to provides high rf gain with low power consumption through 9 section low pass filter and smart directional couple to prevent your final amplifier from any rf output accident from rise temperature and the antenna fault or high vswr condition.

The power to the amplifier is turned back into the safety zone should a fault occur, keeping you on air rather than shutting down completely and taking you off air. Internal harmonic filtering keeps your RF signal clean and compliant to FCC/DTR and CCIR standards. The transmitter contains fully approved efficient switched mode power supply modules with a universal input voltage range from 115-260 Volts AC selectable by switches, Ensuring compatibility of any mains system WORLD-WIDE.

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AlfaThai FM1000B and FM1200B General Specifications

RF POWER AMPLIFIER MODULE	
RF from Exciter Drive	Approx. 0-22watt for model FM600B and drive 0-46watt for model FM1200B
RF Power from RF power	0-1200watt on FM1000B Model and 0-1400watt on FM1200B model
Electronics device	RF Power LDMOS technology with Low Pass Filter and smart VSWR monitor
Connector	UHF-Type 50 Ohm SO-239 for input while N-Type for RF antenna connector
2 nd Harmonics	Better than -60 dBc FCC and CCIR Standard
Spurious	Better than -80 dBc FCC and CCIR Standard
VSWR protection	Automatic Fold back above 1.5:1 force off-air and release by reset switch
Input Impedance	50 Ohm
Output Impedance	50 Ohm
Frequency Band	Broadband FM 87.5 - 108 MHz
Input Connector	UHF SO-239 or N Type
Output Connector	7/16 or N Type
Remote Control Interface	DIN or DB9 Type
Operating Temp	- 10 to +50 Degree C
Relative Air Humidity	90% @ 25 Degree C no condensation
Force Over temperature	40.4 Degree C force off-air
Max Altitude	2000 m a. s. l
Max power consumption	220V ac. @ 11.4A max. 1000watt rf output
Max power consumption	220V ac. @14.8A max.1200watt rf output
DC Power Supply	Switches mode 48 Volt +/- 5% @ 52.8A max. 1000watt rf output
DC Power Supply	Switches mode 48 Volt +/- 5% @ 66.48A max. 1200watt rf output
ELECTRONICS PROTECTION SECTION	
RF Output Protection	Antenna: Open, Short, Cut, Intermittance, high VSWR, Over spec drive.
RF Input Protection	Over drive, surge from exciter
Electrical Protection	Over Voltage, Over Current, Over Temperature
Mechanical Protection	Solid state relay and drive relay for PA power supply
RF Detection	Smart RF Direct coupling technology with impedance monitoring
Control system	Measuring detector On and Off latch output state
RF Protection	9 Section Low Pass Filter
EMI/RFI Protection	AC line Filter and Ground terminal
OTHER	
Front Panel Control System	2-8 Buttons for protection and meter, digital meter, On/Off-Air switches
Cooling	4 Depression DC Fan with fuse protection
External Control/Monitor	9 Way DIN or D-Type (option)
Metering	Digital Meter for RF power/SWR monitor
Front Panel standard indicator	Power On, Antenna Fault, rf amplifier vcc power, On-Air, Over drive
Real Panel Control System	AC input, Power On-Off, Reset Breaker (option), ac/dc Fuse break
Real Panel Connector	7/16 and UHF-SO239 or N Type, Ground Connector, DB25 type for remote
Final Lab Test to Comply all country Regulation Requirement	Final test and comply to all your regulation requirement, QC by our Lab test equipment consists of: Tektronix 492 (100KHz-330GHz) Spectrum Analyzer, HP8590A + HP8443A + HP85029A + HP54503A +HP435B Broadcast Test Set and Analyzer, Racal 1992 10Hz – 1.2GHz frequency counter, Rohde & Schwarz Broadcast Audio Generator 1Hz-600KHz etc!!!!

Manufacture Certificate	We offering QC test data enclosed our product for all regulation reference.
Size	Standard 19 Inc Rack mount, 27-35U type
Weight (approx)	upon model
AC Voltage Input	110 or 260 VAC switchable
Power Connector	IEC, FUSED and Switchable
Switched Mode Supplies Approvals	UL/TUV/CE
Warrantee Period	24 Month after payment
Warrantee voided	No authorize is opened equipment cover or repairs or modification.
Warrantee condition	Normal Operated only, Two times System Alignment at our facility, For on-site services: First installation is free and next times will be transport charge only, Due to switching power is used internal equipment, User must be provide electrical stabilizer and good electrical ground with lightning protection for normal operated.
Repair Fee	All warrantee No services fee of charge, On-Site service transportation charge, for A damage of RF parts and power supply is spare parts charge plus 30% off. Other parts are free of charge.
After warrantee voided	All services offer year to year maintenance contract.
General services fee	All parts for repair is 20% off, Our facility Service charge 50USD flat rate/times

